



3. VRE IN THE FUTURE

Using VRE's future market potential as a guide, the strategic planning process has attempted to define a vision for the railroad in the year 2025 – in terms of its physical extent, the number of trains and the type of schedule operated, and its organizational structure.

The market assessment and regional forecasts make clear that demand for VRE's services will continue to grow into the future. The readily-observable current pace of new land development, particularly residential development, in the areas surrounding many of VRE's stations provides strong supporting evidence.

Since the railroad is currently operating at or a little above its practical capacity, VRE either will have to invest in more capacity or start turning away potential customers. In a strong growth environment, maintaining the *status quo* is not a realistic option. If the entities that now fund the VRE – the Federal government, the Commonwealth of Virginia, and the jurisdictions that comprise the NVTC and PRTC – are unable to increase capital and operating support for VRE and sustain it at high enough levels to allow the service to grow to keep up with demand, VRE will be faced with difficult choices:

1. Maintain the current operation, managing scarce resources as effectively as possible and making small incremental investments to increase capacity and the quantity of service,
2. Raise the fare substantially in an effort to curb the growth in demand and generate sufficient income to preserve a premium quality of service, in effect rationing the service to those willing to pay a premium for it, or
3. Find additional sources of funds to support VRE's growth, lessening the financial burden on the VRE's member jurisdictions.

Following the first path will gradually lead to a deterioration in the traditionally high quality of service experienced by VRE passengers, as demand for rail service increases faster than the available supply. Trains would become more crowded with standees, station parking lots would fill up earlier in the morning rush hour, trip times would get longer as the passenger boarding and alighting process at stations takes longer. Reliability and on-time performance would start to decline as the rolling stock and infrastructure age and show the effects of chronically underfunded maintenance and capital renewal. Without the prospect of significant public investment in the betterment of the railroad, VRE's relationship with its host railroads also could become more strained, negatively affecting customer service.

The second path – fare policy – is a tool that VRE can use to help manage both the demand for service and the level of operating subsidy and capital required to support the service. Discussion of the fare and rate of increase of fares is carried out in the context of the annual process of setting the next fiscal year's VRE budget and six-year budget projections. Raising or adjusting fares can be an appropriate tactical response to current financial mandates and directives. Increasing fares, parking fees, and non-transportation revenue could help VRE defray rising costs and help fund a portion of its



ongoing capital needs, while helping to keep required local subsidies as low as possible. At the same time, a significantly higher fare structure would drive the most fare-sensitive customers away from the railroad – which could help ease the rush hour parking and standee problem. In the context of long-range strategic planning, however, discussion of fare policy relates directly to VRE’s role and objectives as a public transportation provider. Dramatically increasing the fares that VRE customers pay, relative to inflation and the cost of travel by other modes, will fundamentally change VRE’s place in the spectrum of regional transportation choices – tending to make it more of an exclusive or “high end” service than a mode of public transit between the city and suburbs. Though the trips of many VRE riders are subsidized, in part and in some cases entirely by Federal transit subsidy programs, a significant share of VRE’s customers do not participate in such programs. In general, as fares rise relative to the cost of other modes, VRE’s share of the suburb-to-central business district commuting market will decline. To the extent that a premium-fare VRE remains a viable commuting choice for a diminishing segment of the population working in the CBD, VRE’s broad base of support as a regional public transportation service may become undermined and diminished, putting at risk at least some of its current public sources of funding support. Predicting all of the economic and public policy factors affecting VRE’s budgeting and finances over a 25 year period is not possible with any precision in the strategic planning process. As a result, fundamental fare policy issues are not directly considered in this document and are left to the annual budget process and subsequent analyses once the VRE Operations Board has established a strategic direction. The financial performance estimates that are presented in Section 9 of this report attempt to cover a range of possible future conditions within which VRE’s actual performance might fall.

The third option listed above – seeking partners and additional sources of funds – is a potentially appealing way to broaden the base of support for VRE, spread costs, and recognize its broadening geographic appeal. However, following this path will require VRE to re-think itself and could lead toward a significant change in the transportation mission, geographic coverage, organizational structure, and even the day-to-day management and operation of the VRE. As with fare policy, analysis of such changes is beyond the scope of the Strategic Plan, which focuses on technical issues: the ridership market, railroad operations, and required transportation system investments.

Clearly, difficult policy choices will need to be made by the VRE Board, informed both by the Strategic Plan and by the political and economic climate and other factors that the plan is unable to address definitively. The most appropriate short-term policy may entail some combination of all three options described above. As policy direction is established and conditions change over time, this Strategic Plan will need to be updated and refined – including specific elements such as the scope and timing of capital projects and changes to the VRE train schedule. For the time being – in the Spring of 2004 – the VRE Strategic Plan focuses on answering the question originally asked of VRE staff by the VRE Operations Board: What type and level of service should the VRE provide, and what investments will be required, to meet the VRE region’s projected commuter rail demand in the year 2025?

Since VRE’s mission is based on customer service, and since the region’s overall plans for growth and economic development depend in part upon the ability of public transportation modes to carry an increasing share of rush hour commuter trips across the region, the VRE Strategic Plan is a plan for growth – increasing the quantity and extent of VRE service as the population, employment and economic activity in the



corridors it serves also grow. The Plan identifies a long-range vision and also a short-term action plan that is targeted at actions that VRE and its stakeholders should take to address capacity issues of immediate concern and also to build a foundation upon which future expansion can be undertaken cost-effectively.

What's Possible by 2025?

VRE has the potential to at least double its current ridership by 2025. That implies more trains, longer trains, bigger parking lots and garages at many existing stations, and expansion of VRE to new stations and areas beyond its current service territory.

Maintaining VRE's traditionally strong customer service focus will become increasingly difficult as the size of the system grows, and investment in both infrastructure and equipment will be needed to ensure that operations remain reliable.

Many in the greater Washington region have envisioned a future where commuter rail service is run in a coordinated, integrated fashion, instead of having two entirely separate systems for Virginia and Maryland. This vision includes offering travelers the ability to ride commuter trains from one side of the region to the other. Better integration of VRE and MARC service will help mitigate congestion on some of the most crowded portions of Washington's Metro system and will establish the railroad as a key link in the overall regional transit system.

The increase in peak period service and expansion of VRE service into off-peak hours will require investment in additional railroad infrastructure – to preserve the ability of the freight railroads to meet their own customers' demands for reliable on-time service.

Both the passenger and freight business in the region are growing enough to warrant increased rail service. There is the need to operate passenger and freight trains at the same time of day. Freight trains, therefore, will not be able to avoid sharing the track network with passenger trains. To facilitate shared operations, additional tracks will need to be built at strategic locations to allow train dispatchers to keep the train movements flowing smoothly. These investments in rail capacity will provide wide ranging benefits to multiple constituencies, including:

- Improved through freight capacity for CSX and Norfolk Southern
- Capacity for increased intercity passenger service – high-speed rail, and intercity service within Virginia
- Capacity for increased commuter service – for Federal government workers and other commuters
- Easier public transportation access to Reagan National Airport
- Faster, more reliable and more cost-effective local freight service for shippers in the region.

All of these beneficiaries should share in the costs of creating the necessary infrastructure.

A realistic target for daily VRE ridership by 2025 lies somewhere between 25,000 and 35,000 trips – or an approximate doubling of current ridership. The range is a wide one, because there are a number of factors that will affect future ridership. Some are

able to be influenced by VRE and its stakeholders, such as fare policy, the pace and extent of capital investment, and decisions that directly affect VRE's operations, capacity and service quality. Many factors external to VRE and beyond its control also can affect both the regional transportation network as well as land development patterns in the corridors served by VRE. These factors include:

- The state of the local and regional economy, with respect to housing development, job creation, and the strength of the central business district
- Local zoning decisions relative to land available for new housing at the extremities of the VRE service area
- The extent of transit oriented development at and around existing and potential new VRE stations
- The ability of VRE to negotiate the necessary railroad operating and access agreements to allow for expansion
- The level to which commuter rail fares are subsidized through Federal or other programs, and the rate of participation among commuters
- The extent to which major investments are made for other transportation modes in the corridors served by VRE, including any further extension of the Metrorail Orange or Blue lines, or the extension of HOV lanes on I-95 and I-66 beyond what is included in the region's current long-range plan.

Recognizing the uncertainties associated with predicting the future, the strategic plan must be flexible enough to allow VRE to be successful no matter how these factors, particularly the external ones, play out over time. A good example is provided by the last bullet point above. Regional transportation investment decisions with respect to Metrorail and regional high-occupancy vehicle (HOV) lanes could yield two significantly different future visions for VRE's role in providing regional commuter service:

1. Assuming that HOV lane extensions proceed as planned and that funding limitations and extensive capital needs in other corridors prevent or considerably delay beyond 2025 extension of Metrorail in the I-66 and I-95 corridors, then VRE would become the preferred long-distance regional transit mode in portions of the I-66 and I-95 corridors beyond the reach of the current Metro system.
2. Or, if plans were to be advanced to extend Metrorail westward to Centreville and southward to Woodbridge, and HOV lanes also were extended westward to Haymarket and southward into Stafford County, then VRE's long-term share of the commuter market to the central business district would be smaller and more focused on the outer portions of the network.

In both cases, VRE will retain a significant role and ridership base and will serve the market for longer-distance commuting, including territory beyond the direct reach of the Metro. Both cases therefore support the vision of VRE extending its service southward into Fauquier and Spotsylvania counties. The fundamental difference is that, in the second case with extensions of Metro and HOV lanes, the inner portion of the existing Fredericksburg Line and the corridor along I-66 within Prince William County would be

served predominantly by Metro and the HOV lanes, with VRE focusing its service in the other territory it serves, such as Burke Centre, Manassas and Fredericksburg.

In the latter case, at the time when major investments in other modes are made along the inner portions of the VRE network, VRE will be able to redeploy its rolling stock to the fast-growing outer portions of its territory, modify its schedules to provide express commuter rail service to the CBD for these longer-distance trips, and more aggressively pursue expansion beyond its current terminal points. In this way, VRE will be able to make productive use over the long term of the projects that are expected to be constructed and the equipment that will be acquired in the near term.

Capital funds for both highway and transit projects are likely to be severely constrained for the foreseeable future, and the Federal contribution may diminish. Other corridors throughout the region may have higher priorities than the I-95 and I-66 corridors. If Metrorail and HOV extensions are deferred either for lack of funds or in response to priorities elsewhere, VRE is well positioned to offer a cost-effective, fundable option in developing the I-95 and I-66 corridors. In that case, daily VRE ridership at the level of 35,000 daily trips or above is potentially achievable.

How Can We Get There from Here?

VRE faces the same fiscal constraints as all the other transportation providers and agencies in the region. Extensive capital needs within the core network to increase capacity, and a compelling argument for extension of the network to serve the rapidly-developing outer portions of the region, create a significant funding challenge for VRE moving forward.

Recognizing the tradeoffs that exist, and not knowing the extent to which VRE will be able to successfully make the case for increased investment, the Strategic Plan has identified three illustrative scenarios for meeting its demand and realizing its long-range potential, consistent with the vision outlined above. These scenarios are not the only available options, but they show three possible paths that VRE could follow in terms of prioritizing its investments and growth in service. They are intended primarily to illustrate what is possible in terms of VRE system growth at different levels of capital investment and operating support – particularly in the early years through 2009. Shown in Figure 3-1, these scenarios are labeled Targeted Growth, Aggressive Growth and Deferred Growth.

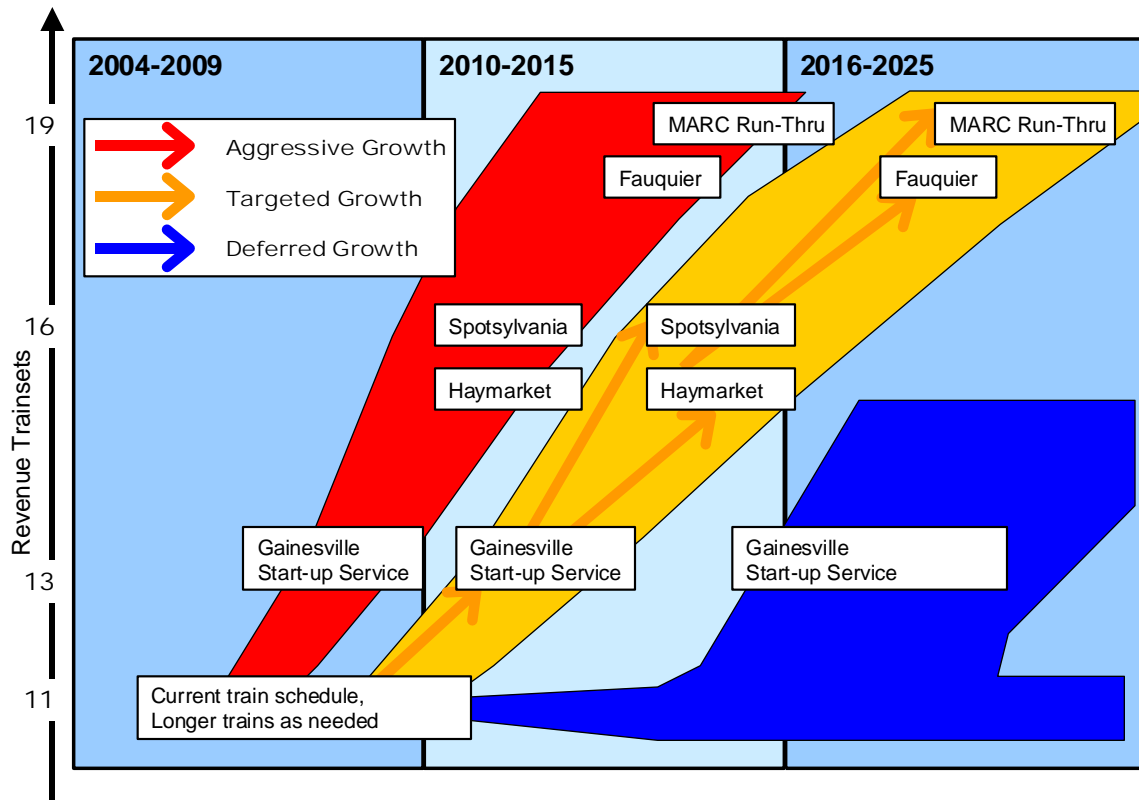
The Targeted Growth scenario represents a middle-of-the-road approach that focuses early investment on core needs and a phased expansion of service in the Gainesville-Haymarket corridor, with additional network expansion in later years. It has formed the baseline for development of the Strategic Plan assumptions about facility, infrastructure and fleet requirements, and the phasing of capital projects and improvements to the VRE operating plan. It is driven primarily by the market for commuter travel, aimed at VRE increasing over time its share of work trips from its catchment areas to the central business district, while facilitating VRE's ability to influence patterns of new development in the vicinity of existing and new stations in a way that reinforces the advantages of travel by rail. It requires a significant increase in the level of capital and operating funding support for VRE but ramps up that investment over time.

The Aggressive Growth scenario represents a more unconstrained approach to meeting VRE's market potential. By investing in service extensions earlier than in the

targeted scenario, this scenario has a greater potential to induce future increases in travel demand to and from the CBD and to facilitate transit-oriented development at multiple locations along the VRE network. It front-loads much of the required capital investment, simultaneously addressing core needs and expansion opportunities, which may not be realistic given the region's current fiscal environment.

The third scenario, Deferred Growth, is more responsive to the financial constraints that currently affect transportation investment in the region. It limits early investment to core needs and both expends capital funds and improves VRE service at a slower pace than either of the other two scenarios. As a result, the VRE network would be capacity-constrained through the early years of the plan, with demand for service exceeding the supply that VRE is able to offer. Within this scenario, VRE could choose to use pricing strategies (involving rail fares and potentially station parking fees) to dampen the rate of ridership growth, keeping demand for rail service in line with the supply that VRE can deliver, and generating a higher level of per capita revenue that could be used to partially fund ongoing capital investment and minimize local subsidies. With much of the planned suburban growth occurring before VRE has the ability to serve it well, this scenario is not likely to generate induced demand or transit-oriented development to the extent that either of the other two scenarios can – so the long-term level of VRE ridership and market share will be lower.

Figure 3-1
VRE Strategic Plan Scenarios (Illustrative)





All three scenarios allow for VRE to monitor the progress and performance of its initial investments – and adjust the pace of growth and development thereafter either upward or downward in response to demand pressures, external economic or political factors, and funding availability.

What's Achievable by 2010?

In the near term, VRE can support any of the three possible growth scenarios by adopting an investment strategy and taking actions with three major thrusts:

- Build a strong core network foundation, focused on maintaining the highest level of service quality and providing sufficient capacity for growth in areas where VRE currently provides service
- Extend and/or increase VRE service within the jurisdictional limits of NVTC and PRTC, in response to a growing commuter market
- Establish strategic partnerships to tap new sources of funds, encourage rail-friendly development, and enable VRE to serve markets beyond its traditional boundaries.

Build a strong core network foundation.

VRE and its stakeholders can take several actions in the short term to set it on a course for growth that is consistent with the potential futures outlined above, focusing on the territory covered by the two governing commissions and making decisions and taking actions that are under VRE's control.

The required near-term investments in rolling stock, suburban station parking, CBD station capacity, and train storage and maintenance facilities are the same regardless of the vision of the future. Decisions about whether or not VRE should aim for the high end of its projected range of demand or aim more for a middle-of-the-road outcome can be deferred until after core needs are met and do not need to be made now.

Extend and increase VRE service within NVTC/PRTC territory.

Strong market potential exists for extension of VRE service within the VRE's existing territory, including:

- More frequent service in the peak periods
- Longer peak windows (earlier morning trains, earlier and later evening trains)
- Faster run times, taking advantage of investments in rail system capacity, basic rail infrastructure and more efficient passenger downtown station configurations, and including introduction of peak express service from the outlying portions of the network
- Increased off-peak service, including mid-day, evening and eventually weekends.

In order to meet growing demand in western Prince William County VRE should consider extending service within Prince William County to Gainesville and eventually Haymarket (once the US 29/I-66 interchange project is completed). New stations



should be implemented where warranted by local development and opportunities to improve regional park and ride access.

Establish strategic partnerships.

VRE should consider seeking partnerships with entities that can help it achieve its long-range vision, including:

- The freight railroads (Norfolk Southern and CSX)
- Amtrak
- The Commonwealth of Virginia
- The State of Maryland, District of Columbia, and the Federal government
- Coalitions and Groups that Support and advocate for investment in the regional railroad system
- Counties and municipalities
- Developers, employers and landowners.

Potential goals of these partnerships should be to:

- increase the level of funding available to VRE or to help VRE tap into new or non-traditional sources of funding
- encourage development that creates or reinforces travel markets that VRE can serve well
- enable VRE to productively serve markets outside its traditional territory.

In partnership with others, VRE can then take steps towards extending service to Gainesville/Haymarket and other projects such as extending service into Fauquier and Spotsylvania Counties, instituting run-through service with MARC at Washington, and perhaps expanding VRE's role in serving the longer-distance travel markets in the Washington-Richmond and Washington-Charlottesville corridors. The costs and benefits of many of these projects are discussed later in this plan.

4. CORE NETWORK NEEDS

The principal short-term needs for VRE to keep pace with its growth are in the areas of station parking, rolling stock and train storage capacity at Washington, DC. Capital investments must be made in each of these core areas together, as part of a coordinated program, in order for VRE to continue satisfying the demand for commuter rail service. Under-investing in any one facet of the core network will create a capacity constraint that could render other elements of the system less than fully usable. For instance, new rail cars can only be operated if there is space to store them mid-day in Washington. They will be filled with passengers only to the extent that parking and other modes of station access can be expanded to accommodate additional commuters.

